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| 09/945,441 | 08/31/2001 | Stephan Brunner | OIC0045US | 3599 |
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| CAMPBELL STEPHENSON LLP 11401 CENTURY OAKS TERRACE BLDG. H, SUITE 250 AUSTIN, TX 78758 | | | HAQ, NAEEM U | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/945,441 | BRUNNER ET AL. |
| | Examiner | Art Unit |
| | Naeem Haq | 3625 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 January 2008.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-5,7-18,24-27,29,31,33-37,39,41-43 and 45-54 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-5,7-18,24-27,29,31,33-37,39,41-43 and 45-54 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application

6) Other: _____.

DETAILED ACTION

Response to Amendment

This action is in response the Applicants' amendment filed on January 7, 2008.

New claim 54 has been added. Claims 1-5, 7-18, 24-27, 29, 31, 33-37, 39, 41-43, and 45-54 are pending and will be considered for examination.

Claim Objections

Claim 54 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. This a dependent claim that does not have a corresponding parent claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 54 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

This claim is a dependent claim because the claim is further limiting another claim. However, the scope of the claim is unclear to the examiner because the parent claim has not been identified.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-5, 7-18, 24-27, 29, 31, 33-37, 39, 42, 43, 46, 47, 49, 51, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strevey et al. (US 6,035,305) (“Strevey”) in view of Thalhammer-Reyero (US 5,980,096) (“Reyero”).

Referring to claims 1, 42, and 43: Strevey teaches a computer-implemented method of customizing a product (col. 4, lines 33-36) comprising:

providing a set of one or more customizable product classes (col. 6, lines 62-67:

“One actual embodiment of the invention employs the Visio® 4.0 computer program, by Visio Corporation, of Seattle, Wash., to provide the display workspace 412 and palette 414. The Visio® program provides a palette 414, referred to as a tool box, that includes a number of master shapes, such as boxes, diamonds, or arrows”; col. 7, lines 9-13: “The Visio 4.0 system utilizes an object-oriented paradigm. In such a paradigm, a particular shape drawn on the computer screen is a graphical object, having certain attributes that define the object. The master shapes represent classes of objects”; col. 7, lines 20-21: “In an object-oriented paradigm, a class is defined by its attributes.”);

receiving a customizable class rule (col. 5, lines 61-67; col. 11, lines 31-49);

receiving a request to designate a customizable product class from the set of customizable product classes as a customizable product instance (col. 7, lines 13-19:

"When an operator selects a master shape, or object class, and a corresponding location on the computer screen, an object corresponding to an instance of the selected class is created and displayed graphically on the computer screen. Generic attributes of the object, such as size and color, are initialized to default values and may be subsequently modified by an operator.");

receiving a request to associate a first component product (i.e. subclass) from a set of component products with the customizable product instance (col. 7, lines 21-32:

"Objects, or instances, within the class include all class attributes. A subclass of a class may be defined, wherein the subclass "inherits" the attributes of the parent class. The inherited attribute values may be modified, or new attributes added to the subclass. An object of the subclass correspondingly obtains the attributes of the subclass. Through "multiple inheritance," an object may be created that is a member of more than one class. Such an object obtains the attributes of all of its parent classes. A hierarchy including classes, subclasses, and objects is useful to organize and understand the numerous objects in a complex system"; col. 10, lines 38-42: "The user interface 410 includes the pallet 414 containing the iconic representations of graphical objects that are selectable by an operator. The iconic representations include: an option icon 604; a dependent module icon 608; an independent module icon 610"; col. 7, lines 13-19: "When an operator selects a master shape, or object class, and a corresponding location on the computer screen, an object corresponding to an instance of the selected class is created and displayed graphically on the computer screen. Generic attributes of the object, such as size and color, are initialized to default values and may be subsequently modified by an operator.")

The Applicants' specification discloses that "component products" are subclasses that inherit attributes from the customizable product class (see paragraph [0025]). Strevey provides the same teaching as noted above.

Strevey also teaches automatically determining whether to associate the first component product (i.e. subclass) with the customizable product instance based on the

customizable class rule (Abstract, lines 15-19: “Upon selection of the objects, an operator is prompted to input specific information pertaining to the selected object. Constraints limit the selections that an operator can make, the appearance of the objects, and the configurations that can be produced from selected objects”; col. 2, lines 52-59: “The graphical objects include a graphical option object, which represents information pertaining to a selection that may be made by a user when configuring the product. The graphical objects also include graphical logical relationship objects, specifically a conjunctive relationship object and a disjunctive relationship object, which are used to represent information necessary in configuring a product”; col. 2, line 65 – col. 3, line 3: “In accordance with further aspects of this invention, the pallet includes a graphical contingent relationship object representing a contingent relationship between graphical option objects or module objects. A contingent relationship indicates that the selection of one of the related objects is required for the selection of the second object”; col. 3, lines 8-10: “In accordance with other further aspects of this invention, the pallet includes a graphical constraint object representing a constraint relationship between two graphical objects” col. 5, lines 3-6: “The rules-based program also configures a product by determining the modules required to be included in the product, based on the set of product options selected”; col. 5, lines 61-67: “At step 54, the computer receives option-to-option relationship information. Option-to-option relationship information describes relationships between product options. For example, the selection of one product option may require the selection of a second product option. Alternatively, the selection of one product option may preclude the selection of a second product option”; col. 9, lines 1-10: “The modules 514, represent sets, or packages, of parts, plans, tools, functional tests, inspections, or software that are to be included in the product or used to assemble the product when one or more associated options are selected. The class of modules 514 has two subclasses: a class of dependent modules 530 and a class of independent modules 532. Dependent modules 530 include modules that have a relationship with two or more options, such that when the two or more options are selected, the use of an associated dependent module is required”). The Applicants’ specification discloses that the step of

determining whether to associate a component product with a customizable product instance based on customizable class rule allows for restricting or excluding one or more component products based on the selection of a specific component in order to guide the consumer to choose the appropriate products (paragraph [0028], lines 5-8; paragraph [0061], lines 1-8). Strevey provides the same teaching as noted above.

Strevey does not teach that the customizable class rule is received in a *natural language template*. However, Reyero discloses a computer-based system, method, and graphical interface for modeling and simulation of complex systems (Abstract, lines 1-5; col. 4, lines 59-62). Reyero further discloses that the invention uses natural language templates to define relations and behaviors (i.e. rules) of classes of items (col. 7, lines 44-55; col. 10, lines 14-21). The examiner notes that the nexus between Strevey and Reyero is that both make use of object-oriented paradigm to model highly complex systems by connecting graphical objects (Reyero: col. 15, lines 12-16). These objects are presented in a palette to the user from which the user can construct complex structures (Reyero: col. 11, line 64 – col. 12, line 19; Figures 13-19). The objects contain attributes that define configuration information and characteristics of the objects (Reyero: col. 6, lines 35-39; col. 15, lines 56-65; Strevey: col. 7, lines 9-32). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the teaching of Reyero into the invention of Strevey. One of ordinary skill in the art would have been motivated to do so in order to provide the user with a more natural way of working with a software application.

Referring to claim 2: Strevey teaches all the limitations of claim 1 as noted above. Furthermore, Strevey teaches determining not to associate the first component product with the customizable product instance if the customizable class rule limits association of the first component product with the customizable product instance (col. 9, lines 38-45: *"The disjunctive relationship 548 represents an exclusive OR relationship between two components, where a component is graphical product object 508 or a group box 542 containing two or more graphical product objects. A selection of one component that is connected by a disjunctive relationship precludes the selection of all other components connected to the selected component by a disjunctive relationship."*) The Applicants' specification discloses that customizable class rules "...may be defined to require or exclude the selection of one or more component products upon selection of a specific component product..." (paragraph [0061], lines 5-7). Strevey provides the same teaching using disjunctive relationships.

Referring to claims 3 and 4: Strevey teaches all the limitations of claim 1 as noted above. Furthermore, Strevey teaches determining to associate the first or second component product with the customizable product instance if the customizable class rule allows association of the first or second component product with the customizable product instance; and associating the first component product with the customizable product instance (col. 9, lines 46-53: *"Conjunctive relationships 546 define a conjunctive, or "AND" relationship between two components, where a component is graphical product object 508 or a group box 542 containing two or more graphical product objects. A selection of one component that is connected by a conjunctive relationship requires the selection of all other components connected to the selected component by a conjunctive relationship."*).

Referring to claim 5: Strevey teaches all the limitations of claim 1 as noted above. Furthermore, Strevey teaches providing a user interface for each component product (Figure 6). Strevey does not explicitly disclose a theme UI, control UI, or group UI. However, the Examiner notes that these limitations are not functionally involved in the steps of the recited method. Therefore these limitations are deemed to be nonfunctional descriptive material. The steps of receiving, designating, providing, and determining would be performed the same regardless of what user interface (UI) was provided. The differences between the content of the Applicants' invention and the prior art are merely subjective. Thus this nonfunctional descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994) also see MPEP 2106. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use any user interface in the invention of Strevey because such information does not functionally relate to the steps of the claimed method and because the subjective interpretation of information does not patentably distinguish the claimed invention.

Referring to claim 7: Strevey teaches all the limitations of claim 1 as noted above. Furthermore, Strevey teaches wherein two or more component products (i.e. subclasses) from the set of component products are associated with the customizable product instance (Figure 7E). Strevey discloses that two "Options" (items "794" and "796") are associated with the customizable product instance (i.e. Pratt & Whitney

Hydraulic Pump, item “792”) through a conjunctive relationship (item “797”).

Furthermore, Strevey teaches that an “Option” (Figure 5A, item “510”) is a subclass of a “Graphical Object” (Figure 5A, item “504”), (col. 8, lines 24-40).

Referring to claim 8: Claim 8 is rejected under the same rationale as set forth above in claim 1.

Referring to claim 9: Claim 9 is rejected under the same rationale as set forth above in claim 2.

Referring to claims 10 and 11: Claims 10 and 11 are rejected under the same rationale as set forth above in claim 3 and 4.

Referring to claim 12: Strevey teaches providing a user interface for each component product (Figure 6).

Referring to claims 13 and 37: Claims 13 and 37 are rejected under the same rationale as set forth above in claim 5.

Referring to claim 14: Claim 14 is rejected under the same rationale as set forth above in claim 7.

Referring to claims 15 and 17: Strevey teaches a computer-implemented method of customizing a product (col. 4, lines 33-36) comprising:

designating a customizable product class from a set of customizable product classes as a customizable product instance (col. 7, lines 13-19): *“When an operator selects a master shape, or object class, and a corresponding location on the computer screen, an object corresponding to an instance of the selected class is created and displayed graphically on the computer screen. Generic attributes of the object, such as size and color, are initialized to default values and may be subsequently modified by an operator.”*);

selecting a first component product (i.e. subclass) from a set of component products to form a customizable product, and associating the first component product with the customizable product instance based on a customizable class rule among the set of customizable class rules, that applies to the customizable product instance. Strevey discloses that two “Options” (items “794” and “796”) are associated with the customizable product instance (i.e. Pratt & Whitney Hydraulic Pump, item “792”) through a conjunctive relationship (item “797”). Furthermore, Strevey teaches that an “Option” (Figure 5A, item “510”) is a subclass of a “Graphical Object” (Figure 5A, item “504”), (col. 8, lines 24-40).

Referring to claim 16: Strevey teaches all the limitations of claim 15 as noted above. Furthermore, Strevey teaches selecting a second component product to add to the customizable product, wherein the selecting is based on the first component product and at least one of the customizable class rules (Figure 7D).

Referring to claim 18: Strevey teaches all the limitations of claim 15 as noted above. Furthermore, Strevey teaches automatically associating a second component product with the customizable product instance upon selecting based on at least one of the customizable class rules (col. 9, lines 46-53: “*Conjunctive relationships 546 define a conjunctive, or “AND” relationship between two components, where a component is graphical product object 508 or a group box 542 containing two or more graphical product objects. A selection of one component that is connected by a conjunctive relationship requires the selection of all other components connected to the selected component by a conjunctive relationship.”*”)

Referring to claim 24: Claim 24 is rejected under the same rationale as set forth above in claim 15.

Referring to claim 25: Claim 24 is rejected under the same rationale as set forth above in claim 16.

Referring to claim 26: Claim 8 is rejected under the same rationale as set forth above in claim 17.

Referring to claim 27: Claim 27 is rejected under the same rationale as set forth above in claim 18.

Referring to claim 29: Strevey teaches all the limitations of claim 18 as noted above. Strevey does not explicitly disclose pricing information or discount pricing. However, the Examiner notes that these limitations are not functionally involved in the steps of the recited method. Therefore these limitations are deemed to be nonfunctional descriptive material. The steps of receiving, designating, providing, and determining would be performed the same regardless of what information was provided. The differences between the content of the Applicants' invention and the prior art are merely subjective. Thus this nonfunctional descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994) also see MPEP 2106. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to display any information in the invention of Strevey because such information does not functionally relate to the steps of the claimed method and because the subjective interpretation of information does not patentably distinguish the claimed invention.

Referring to claim 31: Strevey teaches that the customizable product rule comprises component product information to guide a consumer in a selection of the customizable product, and the component product is displayed in a user interface (col. 13, lines 15-34).

Referring to claim 33: Claim 33 is rejected under the same rationale as set forth above in claim 1.

Referring to claim 34: Claim 8 is rejected under the same rationale as set forth above in claim 2.

Referring to claim 35: Claim 8 is rejected under the same rationale as set forth above in claim 3.

Referring to claim 36: Claim 36 is rejected under the same rationale as set forth above in claim 4.

Referring to claim 39: Claim 39 is rejected under the same rationale as set forth above in claim 7.

Referring to claims 46, 47, 49, 51, and 53: Claims 46, 47, 49, 51, and 53 are rejected under the same rationale as set forth above in claim 42 and 43.

Claims 40, 41, 44, 45, 48, 50, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strevey et al. (US 6,035,305) (“Strevey”) in view of Thalhammer-Reyero (US 5,980,096) (“Reyero”) and further in view of Skeirik et al. (US 4,884,217) (“Skeirik”).

Referring to claims 40 and 41: Strevey teaches all the limitations of claim 1 as noted above. Strevey does not teach the customizable class rule is received in a

natural language format, or that customizable class rule is converted from the natural language format into a low-level computer language. However, Skeirik teaches an expert system with classes of rules wherein in the user input is in a natural language format and the format is then converted into a low-level computer language (col. 11, lines 19-34). Therefore it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Skeirik into the invention of Strevey. One of ordinary skill in the art would have been motivated to do so in order to facilitate the use in the system of data from a wide variety of systems, as taught by Skeirik.

Referring to claims 44, 45, 48, 50, and 52: Claims 44, 45, 48, 50, and 52 are rejected under the same rationale as set forth above in claims 40 and 41.

Response to Arguments

Applicants' arguments with respect to the rejection of claims 1-5, 7-18, 24-27, 29, 31, 33-37, 39, 41-43, and 45-53 under 35 USC §101 have been fully considered and are persuasive. The rejection of these claims under 35 USC §101 has been withdrawn.

Applicants' arguments with respect to the rejection of claims 1-5, 7-18, 24-27, 29, 31, 33-37, 39, 41-43, and 45-53 under 35 USC §103 have been fully considered but they are not persuasive.

The Applicant has argued that Strevey does not teach the limitation "determining whether to associate the first component product with the customizable product instance based on the customizable class rule". The examiner respectfully disagrees.

The Applicants' specification discloses that the step of determining whether to associate a component product with a customizable product instance based on customizable class rule allows for restricting or excluding one or more component products based on the selection of a specific component in order to guide the consumer to choose the appropriate products (paragraph [0028], lines 5-8; paragraph [0061], lines 1-8). Strevey teaches the following:

col. 2, line 65 – col. 3, line 3: *"In accordance with further aspects of this invention, the pallet includes a graphical contingent relationship object representing a contingent relationship between graphical option objects or module objects. A contingent relationship indicates that the selection of one of the related objects is required for the selection of the second object"*; col. 3, lines 8-10: *"In accordance with other further aspects of this invention, the pallet includes a graphical constraint object representing a constraint relationship between two graphical objects"* col. 5, lines 3-6: *"The rules-based program also configures a product by determining the modules required to be included in the product, based on the set of product options selected"*; col. 5, lines 61-67: *"At step 54, the computer receives option-to-option relationship information. Option-to-option relationship information describes relationships between product options. For example, the selection of one product option may require the selection of a second product option. Alternatively, the selection of one product option may preclude the selection of a second product option"*

Thus Strevey provides for the same restricting or excluding of one or more component products based on the selection of a specific component in order to guide the consumer to choose the appropriate products as claimed by the Applicants.

Conclusion

Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naeem Haq whose telephone number is (571)-272-6758. The examiner can normally be reached on M-F 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Smith can be reached on (571)-272-6763. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Naeem Haq/
Primary Examiner, Art Unit 3625

April 10, 2008